

In the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please cancel claim 35 without prejudice or disclaimer.

Please add claim 37.

Please amend claims 24, 26-28, and 30-34 as follows:

Claim 1 (canceled)

2. (original) An isolated HIV envelope protein comprising the amino acid sequence of SEQ ID NO: 1.

Claims 3-22 (canceled)

23. (previously presented) An isolated HIV envelope protein consisting of the amino acid sequence of SEQ ID NO: 1.

24. (currently amended) An isolated HIV envelope protein comprising SEQ ID NO: 1 or fragment thereof [~~comprising a proline at a position corresponding to amino acid residue 313, a methionine at a position corresponding to amino acid residue 314 and a glutamine at a position corresponding to amino acid residue 325 of SEQ ID NO: 1,~~] of at least 37 amino acids, wherein the HIV envelope protein or fragment thereof [~~containing the residues~~] induces the production of a cross-reactive neutralizing anti-serum against multiple strains of HIV-1 *in vitro*.

25. (withdrawn) An isolated HIV envelope protein or fragment thereof comprising a V3 region having the amino acid sequence PMGPGRAFYTGGQ (SEQ ID NO: 24) or conservative amino acid substitutions at positions 3-9 of the amino acid sequence, wherein the HIV envelope protein or fragment thereof containing the residues induces the production of a cross-reactive neutralizing anti-serum against multiple strains of HIV-1 *in vitro*.

26. (currently amended) [~~A recombinantly produced~~] The isolated HIV envelope protein of claim 24 comprising [~~a proline at a position corresponding to amino acid residue 313, a methionine at a position~~

corresponding to amino acid residue 314 and a glutamine at a position corresponding to amino acid residue 325 of] SEQ ID NO: 1[~~]~~ or fragment thereof of at least 37 amino acids, wherein the [recombinantly produced] HIV envelope protein or fragment thereof is recombinantly produced and induces the production of broadly cross-reactive neutralizing anti-serum against multiple strains of HIV-1 *in vitro*.

27. (withdrawn but currently amended) [A] The recombinantly produced HIV envelope protein [comprising a] of claim 26, wherein the V3 region [having the] of the protein comprises the amino acid sequence PMGPGRAFYTGGQ (SEQ ID NO: 24) or conservative amino acid substitutions at positions 3-9 of the amino acid sequence, wherein the recombinantly produced HIV envelope protein induces the production of broadly cross-reactive neutralizing anti-serum against multiple strains of HIV-1 *in vitro*.

28. (withdrawn but currently amended) A peptide of about [13] 37 to about 100 amino acid residues in length comprising the amino acid sequence PMGPGRAFYTGGQ (SEQ ID NO: 24) or conservative amino acid substitutions at positions 3-9 of the amino acid sequence.

29. (withdrawn) A peptide of claim 28, wherein the peptide is cyclic.

30. (currently amended) [An] The HIV envelope protein fragment of claim 24 or 25, wherein [the] said fragment is about [13] 37 to about 100 amino acids in length.

31. (currently amended) [An] The isolated HIV envelope protein of claim 25, wherein the amino acid sequence of the envelope protein comprises at least about 95% sequence identity to SEQ ID NO: 1.

32. (currently amended) [An] The isolated HIV envelope protein of claim 25, wherein the amino acid sequence of the envelope protein comprises at least about 98% sequence identity to SEQ ID NO: 1.

33. (currently amended) [An] The isolated HIV envelope protein of claim 25, wherein the amino acid sequence of the envelope protein comprises at least about 99% sequence identity to SEQ ID NO: 1.

34. (currently amended) A [~~vaccine~~] composition comprising an isolated HIV-1 envelope protein or fragment thereof of any one of claims 2, 23, 24, 25, 26, 27 [~~and~~] or 28 and a pharmaceutically acceptable carrier.

Claim 35 (canceled)

36. (previously presented) A method of generating antibodies in a mammal comprising administering the HIV-1 envelope protein or fragment thereof of claims 2, 23, 24, 25, 26, 27 and 28 in an amount sufficient to induce the production of the antibodies.

37. (new) The isolated HIV envelope protein or fragment thereof of claim 24 wherein the V3 region comprises the amino acid sequence PMGPGRAFYYTTGQ (SEQ ID NO: 24).